



State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

NORTH LAWRENCE WATER AUTHORITY REROUTED WATER MAIN PRELIMINARY ENGINEERING REPORT ADDENDUM #1 STATE REVOLVING FUND PROJECT # DW 101 188 02

DATE: March 9, 2012

TARGET PROJECT APPROVAL DATE: April 9, 2012

I. INTRODUCTION

The above entity has applied to the Drinking Water State Revolving Fund (DWSRF) Loan Program for a loan to finance all or part of the drinking water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA, which can also be viewed at <http://www.in.gov/ifa/srf/>.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The DWSRF has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

**Max Henschen
Senior Environmental Manager
State Revolving Fund -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-8623; mhensche at ifa.in.gov**

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address:	North Lawrence Water Authority New Water Main Route PER Addendum #1 116 Bailey Scales Road P.O. Box 277 Bedford, IN 47421
SRF Project Number:	DW 101 188 02
Authorized Representative:	Larry Chenault, President North Lawrence Water Authority

II. PROJECT LOCATION

The project is located in Lawrence County, Perry Civil Township, in the Oolitic USGS 7.5' quadrangle, T6N, R2W, Section 26; see Figure A.

III. PROJECT NEED AND PURPOSE

The original project, including routes of various water segments, was approved on June 24, 2002 by the SRF Loan Program; the project also included a new drinking water treatment plant, wells and water lines.

On April 28, 2010, the SRF Loan Program reaffirmed its approval of that part of the project which included the line discussed in this document. On August 13, 2010, the Authority submitted Preliminary Engineering Report (PER) Addendum #1, which changed the water main route because of easement acquisition problems.

The purpose of the segment of water main discussed in this document is to provide the correct volume of water to Booster Station #2 so it can operate at its original design capacity; that need still exists-- if the distribution system improvements are not completed, the utility may have trouble supplying an adequate quantity of water in certain areas of the system while maintaining adequate pressures.

IV. PROJECT DESCRIPTION

The revised route will install approximately 5,000 feet of 12-inch diameter water main with valves, fittings, and flushing hydrants.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

Construction Costs

Water Main	\$ 911,800
Contingency	<u>71,200</u>
Total Estimated Construction Cost	\$ 983,000

Non-Construction Costs

Engineering, Legal and Financial	\$ <u>145,000</u>
Total Estimated Project Cost	\$1,128,000

- B. The North Lawrence Water Authority will finance the project with a 20-year loan of approximately \$1,128,000 from the State Revolving Fund (SRF) Loan Program at an interest rate to be determined at the time of loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

The no-action alternative was rejected because it would not address the need for the booster station #2 to operate within its design parameters. The selected alternative is to install the rerouted water main to ensure reliability of water supply.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Undisturbed/Disturbed Land: The proposed project will not affect archaeological resources. Most of the route has been disturbed by previous construction/utility installation activity.

Structural Resources (Figure B): Construction and operation of the project will not alter, demolish or remove historic properties. If any visual or audible impacts to historic sites occur, they will be temporary and will not alter the characteristics that qualify such properties for inclusion in or eligibility for the National Register of Historic Places. The SRF's finding pursuant to the Section 106 of the National Historic Preservation Act is: "no historic properties affected."

Surface Waters: The project will not adversely affect natural, scenic, or recreational rivers and streams or waters of high quality or exceptional use streams.

Wetlands: There are no wetlands in the project area.

100-Year Floodplain: The project is not in a 100-year floodplain.

Groundwater: The project will not require dewatering and will not affect groundwater or wells.

Plants and Animals: The route of the water main follows grassy areas and areas cleared for an unimproved roadway or for other utilities. The construction and operation of the project will not negatively impact state or federal listed endangered species.

Prime Farmland: The project will not affect prime/unique farmland.

Air Quality: Air quality will be temporarily impacted by construction activities, including vehicle exhaust and dust.

Open Space and Recreational Opportunities: The proposed project will neither create nor destroy open space and recreational opportunities.

National Natural Landmarks: The proposed project will not affect National Natural Landmarks.

B. Indirect Impacts

The Authority's Preliminary Engineering Report (PER) states: *The North Lawrence Water Authority, through the authority of its board or other means, will ensure that future development, as well as future supply, storage, distribution or treatment works projects connecting to SRF-funded facilities will not adversely impact archaeological/historical/structural resources, wetlands, wooded areas, steep slopes, or other sensitive environmental resources. The North Lawrence Water Authority will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.*

C. Comments from Environmental Review Authorities

The Natural Resources Conservation Service, in correspondence dated February 2, 2012, stated: *The proposed project... will not cause a conversion of prime farmland.*

The U. S. Fish and Wildlife Service, in correspondence dated February 14, 2012, stated:

These comments are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U.S. Fish and Wildlife Service's Mitigation Policy.

As your letter states, this office reviewed the project previously in January, 2002. The current design revision consists of a rerouted segment of new water line near the town of Springville. ... The new route follows an unimproved path for approximately ¼ mile at its south end, then follows improved rural residential roads for the remainder of the segment.

*Based on recent aerial photographs, approximately 2/3 of the revised route is bordered by undeveloped forest on one or both sides. Some forested sections are bordered by cleared areas on one side and/or contain narrow cleared areas between roads and forest. The unimproved path appears to be 25-40 feet wide, but in residential areas the improved road is 15-20 feet wide. It does not appear possible to construct the entire route without tree removal, however it may be possible to install the water line without removal of undeveloped forest. We do not anticipate any significant impacts on wildlife habitat from this new water line route, however tree removal should be minimized and all of our previous recommendations concerning identification and protection of karst resources should be implemented. **

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Endangered Species

The proposed project is within the range of the federally endangered Indiana bat (Myotis sodalis) and fanshell mussel (Cyprogenia stegaria). In Lawrence County the fanshell's distribution is limited to the White River.

Indiana bats hibernate in caves, then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Recent research has shown that they will inhabit fragmented landscapes with adequate forest for roosting and foraging. Young are raised in nursery colony roosts in trees, typically near forested drainageways in undeveloped areas.

There are several caves within a few miles of the project, but none support hibernating populations of the Indiana bat. The undeveloped forest in the project area provides suitable summer habitat for that species. The project will not eliminate enough habitat to adversely affect the Indiana bat, but if tree removal is required in undeveloped forest, to avoid potential disturbance of an occupied roost tree no suitable roost trees should be removed between April 1 and September 30. If this protection measure is implemented we concur that the proposed project is not likely to adversely affect these listed species.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. If project plans are changed significantly, please contact our office for further consultation.

* The Service's January 4, 2002, comments regarding karst resources were:

The project area ...is underlain by karst limestone formations which are associated with an extensive network of subterranean caves, passages, and waterways. The ubiquitous sinkholes in the area are typical surface features of karst formations; they function as conduits for water recharge from surface drainage. In addition to their use by bats as hibernacula, caves often support assemblages of unique subterranean fauna. Excavation which intersects karst features or rerouting of drainage can drastically alter underground water and air flow patterns, resulting in significant adverse impacts to cave ecosystems. Drainage containing contaminants from construction sites, highway ditches, or other sources can also have substantial impacts. To minimize adverse impacts on karst systems, and fish and wildlife resources in general, we recommend the following measures:

- 1. Conduct a karst survey to determine if karst features will be impacted by the proposed project. In a January 28, 2002 phone conversation with the SRF, the Service clarified that the routes for the lines should be visually checked to see if sinkholes will be impacted by the project. The utility and its consultants should have a plan in place describing actions to be taken to eliminate/minimize sinkhole impacts and groundwater pollution.*
- 2. If flowage of springs will be affected, it should be rerouted rather than obstructed.*
- 3. Maintain a buffer of undisturbed vegetation at least 25 feet wide around the highest contour of all sinkholes which contribute to karst drainageways.*

4. *Maintain approximately the existing volume of water drainage to affected sinkholes. In situations where this can not be accomplished for each sinkhole, studies should be conducted to determine the general groundwater/drainage patterns of the immediate area, and the approximate drainage volume of the entire system should be maintained.*

5. *Avoid routing of drainage containing construction site sediment, highway ditch effluent, or other pollutants directly into sinkholes. If routing of polluted drainage to sinkholes is unavoidable, it must first be treated by filters or other devices for removal of pollutants.*

The IDNR Division of Historic Preservation and Archaeology, in correspondence dated December 5, 2011, stated: *Pursuant to IC 13-18-21 and 327 IAC 14 and Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) and 36 C.F.R. Part 800, the Indiana State Historic Preservation Officer ("Indiana SHPO") is conducting an analysis of the materials...for the...project in Perry Township, Lawrence County, Indiana.*

Based on our analysis, it has been determined that no historic structures will be altered, demolished, or removed by the proposed project.

In regard to archaeological resources, we concur with the conclusions and recommendations of the archaeological report (Plunkett, 10/13/11). Site 12Lr1175 is not eligible for the National Register of Historic Places. No further archaeological investigations are needed at that site, or in the rest of the project area which was surveyed during this archaeological reconnaissance. In regard to the archaeological report (p. 13) please notify our office when the curation facility has been finalized so that we may add that information to our copy of the report. In addition, we note that the archaeological site form for 12Lr1175 needs to be entered into SHAARD [State Historic Architectural and Archaeological Research Database].

If any archaeological artifacts, features, or human remains are uncovered during construction, state law (Indiana Code 14-21-1-17 & 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days.

The IDNR Environmental Unit, in correspondence dated March 6, 2012, stated: *The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.*

Regulatory Assessment: *Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.*

Natural Heritage Database: *The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.*

Fish and Wildlife Comments: *The cleared width through any forested area should be the minimum needed to install the line. Impacts to non-wetland forest under one*

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(1) acre should be mitigated at a 1:1 ratio, while impacts to non-wetland forest over one (1) acre should be mitigated at a minimum 2:1 ratio.

Additional measures that should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

- 1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion.*
- 2. Minimize the removal of trees and brush.*
- 3. Do not cut any trees suitable for Indiana bat roosting (greater than 3 inches dbh [diameter at breast height] living or dead, with loose hanging bark) from April 1 through September 30.*
- 4. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.*
- 5. Seed and protect disturbed stream banks and slopes that are 3:1 biodegradable heavy-duty erosion control blankets (follow manufacturer's recommendations for installation); seed and apply mulch on all other disturbed areas.*

VIII. MITIGATION MEASURES

The Authority's PER states: *The following mitigation measures will be required to be followed during construction along with any other mitigation measures cited in comment letters from the environmental agencies.*

- 1. Upon completion of construction, the contractor shall remove all equipment, temporary structures, waste materials and rubbish from the vicinity of which the work was being done. The premises should be left in a neat and presentable condition.*
- 2. The area around all construction will be restored to its original condition after construction is complete to minimize the direct impacts. All disturbed areas of this project located outside of the pavement will be refurbished and seeded to establish cover and prevent erosion. Siltation devices and temporary seeding will be utilized, where applicable. The contractor in charge of construction must abide by local and state requirements to minimize soil erosion. This will include complying with IDEM rule 5 for storm water runoff.*
- 3. To minimize the effects on air quality, construction activities shall be limited to normal working periods and proper clean up practices shall be implemented. Surface wetting practices will be utilized to control dust emissions.*

IX. PUBLIC PARTICIPATION

The proposed route change was discussed at the North Lawrence Water Authority's monthly board meeting on December 20, 2011.

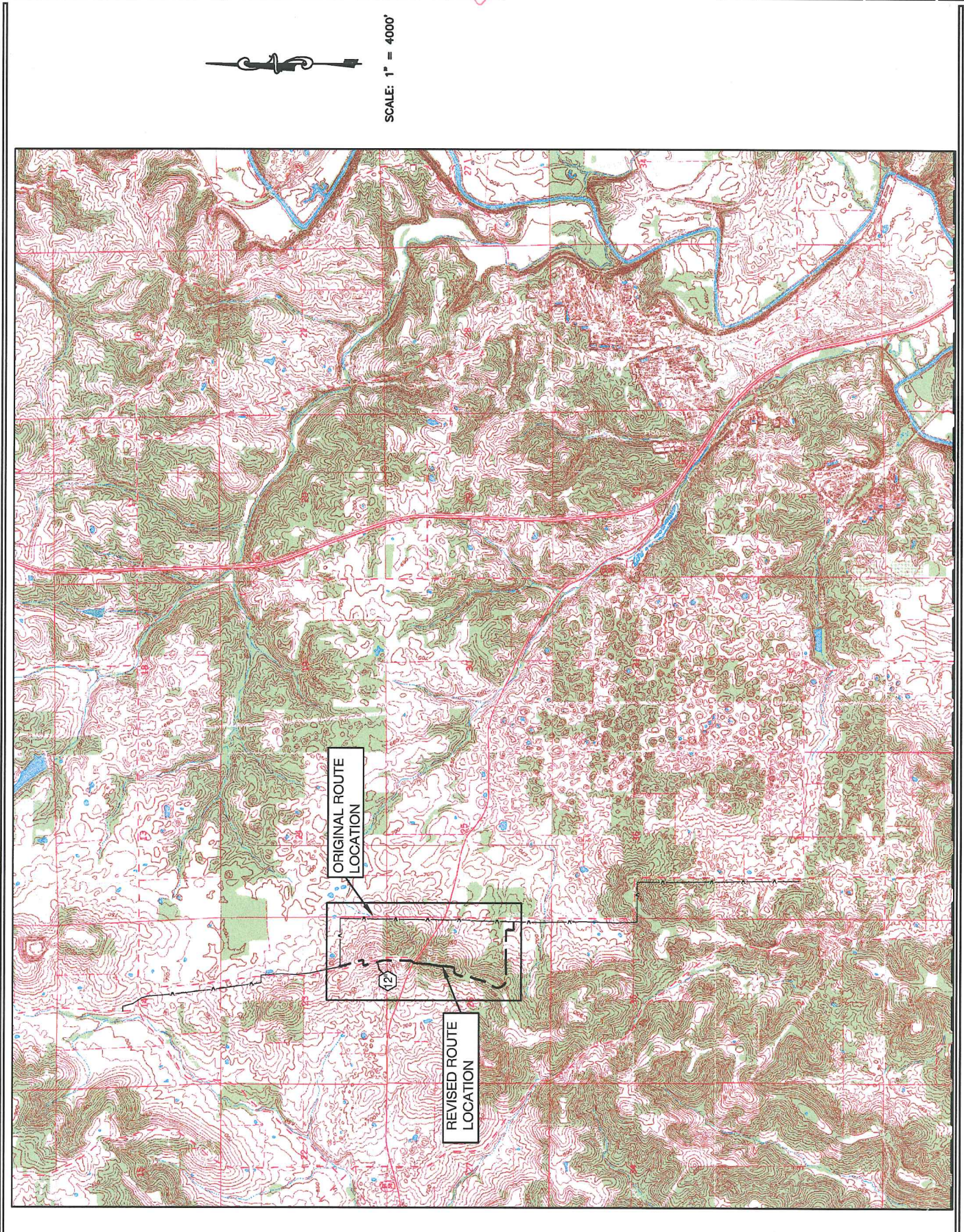


FIGURE A

402 West Broadway, Suite 100
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INTERIM REPORT MAP
 FOR THE
 NORTH LAWRENCE WATER AUTHORITY
 BOOSTER STATION NO. 2 /
 SPRINGVILLE REINFORCEMENT MAIN
 FOR THE LAWRENCE COUNTY, INDIANA

6/1/76

1. Project Name
 2. Project Number
 3. Project Location
 4. Project Date
 5. Project Status

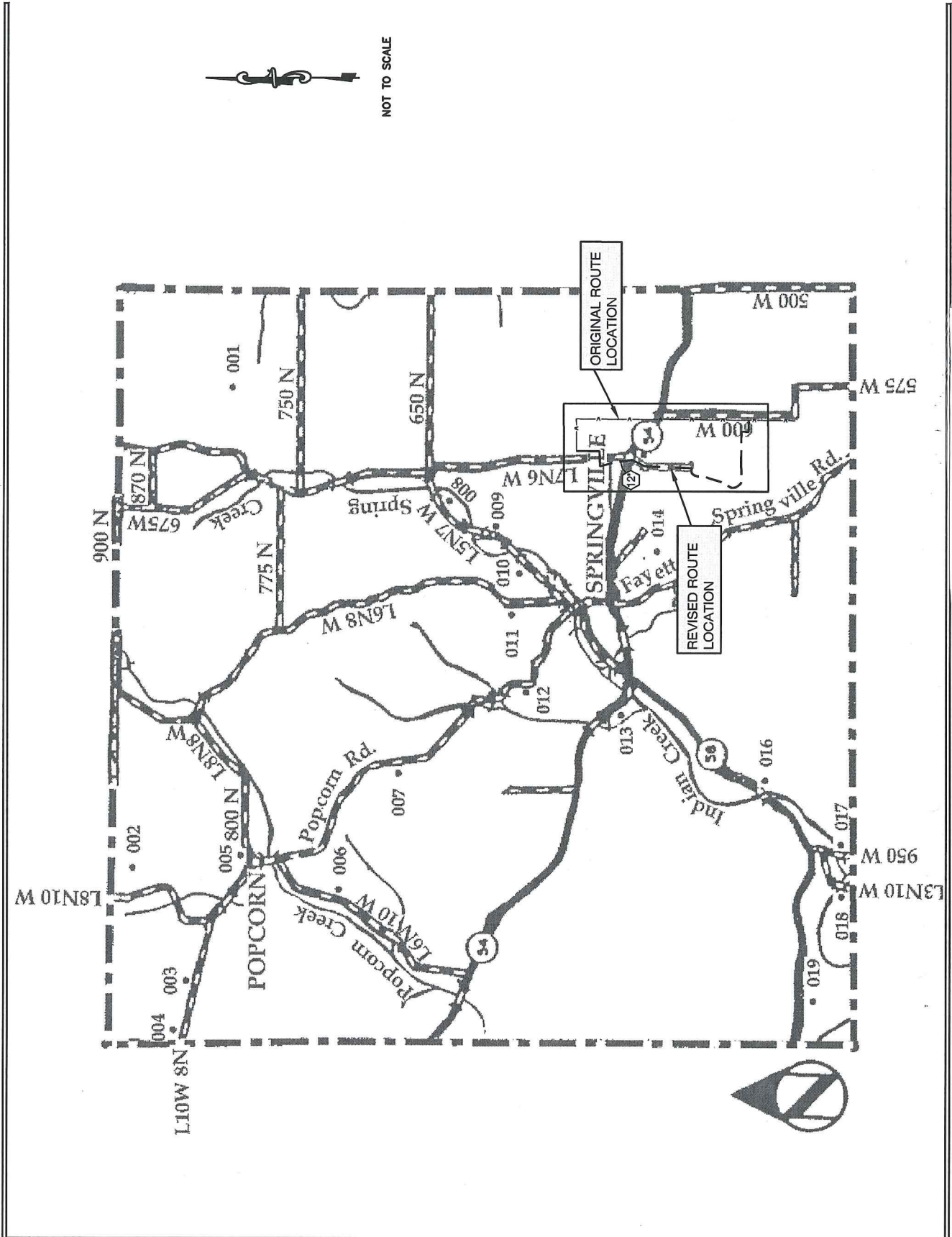


FIGURE B: from Lawrence Co. Interim Report
 Indiana Historic Sites and Structures Inventory